REMARKS

Summary of the Office Action

Claims 1-5 are pending in the application.

Applicant thanks the Examiner for withdrawing the rejection of claims 1-5 under 35 U.S.C. § 103 as being unpatentable over Klein (U.S. Patent No. 6,311,245).

In the present Office Action, claims 1 and 3 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter not described in the specification so as to enable one to make and/or use the invention. Also, claims 1-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

The Examiner has objected to claims 1-5, alleging various informalities. In particular, the Examiner states that various occurrences of "said ports" and "ports" should be changed to "said communication ports". Claims 1 and 3 are amended to accommodate the Examiner's request.

Additionally, the Examiner has objected to claims 1 and 3, alleging that these claims contain a phrase "the previous step". Applicant respectfully submits that this phrase was removed from the claims by the Preliminary Amendment filed May 11, 2000.

Claim Rejections - 35 U.S.C. § 112

In rejecting claims 1 and 3 under 35 U.S.C. § 112, first paragraph, the Examiner states that claims 1 and 3 recite prioritizing according to the number of communication ports and transmission speed, but fail to enable one "on how to weigh or factor each element in

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prioritizing." Amended claims 1 and 3 specify that nodes of higher speed have higher priority than nodes of lower speed and nodes of equal speed are prioritized so that nodes having more of the communication ports have a higher priority than nodes having fewer of the communication ports. Support for this amendment is found, for example, in the specification at page 4, lines 6-9, and Fig. 3B.

The Examiner has also rejected claim 3 under § 112, first paragraph, as reciting "a prerequisite of total communication port number", but failing to disclose the prerequisite and "to enable one on verifying the prerequisite." Amended claim 3 specifies that the prerequisite is that the total port number of all of the ports is not less than 2(N-1).

It is believed that amended claims 1 and 3 meet the requirements of 35 U.S.C. § 112, first paragraph.
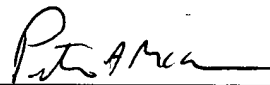
In rejecting claims 1-5 under 35 U.S.C. § 112, second paragraph, the Examiner lists various instances of what he considers to be recitations having insufficient antecedent basis. It is believed that amended claims 1 and 3, as well as dependent claims 2, 4 and 5, meet the requirements of 35 U.S.C. § 112, second paragraph.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Date: May 23, 2003

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) A method of optimizing [the] a topology of a serial bus having a plurality of nodes each with communication ports, comprising the steps of:

prioritizing said nodes according to the number of said communication ports and [the] a transmission speed of said nodes, such that nodes of higher speed have higher priority than nodes of lower speed and nodes of equal speed are prioritized so that nodes having more of said communication ports have a higher priority than nodes having fewer of said communication ports;

connecting a non-used port of the node of the lowest priority with a port of the node of the next priority; and

repeating the connecting step until all of said nodes are connected together, whereby said nodes are connected through said communication ports according to priority order.

3. (Twice Amended) A method of optimizing [the] a topology of a serial bus having a plurality of nodes each with communication ports, comprising the steps of:

comparing [the] a total [port] number of ports of all of said nodes with a reference value varying with the number (N) of said nodes to determine whether [the] a prerequisite for constructing said topology is satisfied, the prerequisite being that the total number of ports of all of said ports is not less than 2(N-1);

prioritizing said nodes according to the number of said communication ports and [the] a transmission speed of said nodes when said prerequisite is satisfied, such that nodes of higher

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speed have higher priority than nodes of lower speed and nodes of equal speed are prioritized so that nodes having more of said communication ports have a higher priority than nodes having fewer of said communication ports;

connecting a non-used port of the node of the lowest priority with a port of the node of [the] a next higher priority;

repeating the connecting step until all of said nodes are connected together; and

separating the last connected node to assign to the node of the foremost priority among [the] nodes in a next higher speed group [higher priority] than the separated last connected node when no port remains in the node of the lowest priority to connect with the node of [the] next priority during the repeating step, whereby said nodes are connected through said communication ports according to priority order.